

Project Scoping

MoDOT must deliver projects at the dates and costs to which we committed ourselves. Project scoping is critical to delivering safer and properly prepared projects to the STIP and is discussed in Subsection 1-02.6 in the PDM. The core team is to determine the most accurate scope, cost estimate and schedule of the project before it is included in the STIP. The Project Manager is responsible for the budget and schedule of a project scoped through the core team process. Design Division's Technical Support Engineers are responsible for working with the core team to develop a practical scope.

Scope Memo

Subsections 1-02.7 through 1-02.9 in the PDM discuss how core teams document the project's scope by producing a scope memo. Scope memos are required for every project proposed to be included in the STIP that has right of way and/or construction funds. Although previous scope memos may not have provided much project detail, they are to show the appropriate level of detail. A clear view of the practical solution must be maintained while developing project plans so that no changes are needed when the plans, specifications and estimates (PS&E) are submitted to the Central Office. Whether the scope memo is relatively brief or lengthy, a request for concurrence on the practical solution is encouraged to be included.

Scope memo example

A project to replace a deficient bridge could provide the following details:

Existing:	Minor roadway AADT = 400 Existing approach roadway width = 22' (2 – 11' lanes) with 2' shoulders Existing bridge width = 22'
Proposed:	Proposed bridge width = 26' curb to curb. Add approach guardrail with end treatments No other roadway improvements proposed. No R/W needed 25 year flood frequency Close road during const. Const. Cost = \$450,000, 1 st Quarter FY07

Scope Change Memo

A scope change memo supports changing the purpose and need of a project, the project cost and/or schedule of a STIP project. Like a scoping memo, the scope change memo needs to be detailed enough to show the difference between the original project and the newly proposed changes and reasons to justify changes to the STIP. Subsection 1-02.11 of the PDM states the authorized level of approval needed for scope change memos.

Because MoDOT is accountable for STIP projects' costs, a project cost scope change memo must state the difference between the original and new project estimate. The project cost scope change memo shall also identify the necessary measures to bring the project within budget. It may be that, to reduce costs, the only project items remaining to be removed are core elements that support purpose and need and cannot be removed. Over-budget STIP projects are adjusted against district distributed STIP funds.

Cost scope change memo example

Details for a roadway resurfacing project (3R):

Existing: Major roadway
Existing roadway = 2 – 12' lanes with 6' aggr. shoulders
No accident problems
Some broken pavement and joint faulting

STIP scope: 3 ¾" overlay with superpave
3 ¾" overlay existing shoulders with BP
Pavement repair
Rumble strips
Incentive/Disincentive
Guardrail replacement

Current STIP schedule and budget: FY08, \$3.5 million

At a design process milestone, various reasons including inflation cause the project's estimated cost to increase by \$500,000.

New proposed STIP schedule and budget: FY08, \$4.0 million

Because of the cost increase, a scope change memo is needed to change the project's budget in the STIP. The core team determines the priority of items that would have to be removed from the project to maintain its cost.

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| 1) Incentive/Disincentive – Maximum incentive | = \$100,000 |
| 2) Guardrail replacement – No accident locations | = \$200,000 |
| 3) Pavement repair | = \$100,000 |
| 4) Shoulder paving | = \$500,000 |

In this example it could be reasoned that the incentive/disincentive and guardrail replacement could be removed from the project scope, but pavement repair and shoulder paving are core purpose and need items that are to remain. Therefore, the scope change memo for an estimate change could be approved and reprogrammed in the STIP as follows:

New STIP schedule and budget: FY08, \$3.7 million

In this example, the district's distributed STIP TCOS funds would be adjusted for an additional \$200,000.

Because MoDOT is also accountable for STIP projects' schedules, a project fiscal year scope change memo must include enough detail to support the need to accelerate or delay a STIP project's schedule similar to a scope change memo for estimate changes.

The above examples are for informational purposes only and provide possible ways of stating and supporting scoping and scoping change memos.